

CHARTING THE COURSE

A Pan-Canadian Consultation on Population and Public Health Priorities

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Canadian Institute
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Institut canadien
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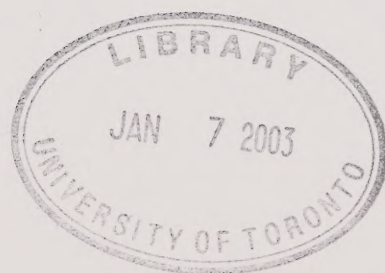
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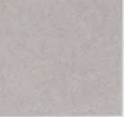
A PAN-CANADIAN CONSULTATION ON POPULATION AND PUBLIC HEALTH PRIORITIES

Canadian Institutes of Health Research,
Institute of Population and Public Health

Canadian Institute for Health Information,
Canadian Population Health Initiative

May 2002





PREFACE

In September and October 2001, two organizations collaborated in a cross-country consultation in ten Canadian cities. In the summer of 2001, Members of the Institute Advisory Board of the Institute of Population and Public Health (IPPH) of the Canadian Institutes of Health Research and the Canadian Population Health Initiative (CPHI) Council of the Canadian Institute for Health Information recommended that IPPH and CPHI work together to identify priorities for population and public health research and knowledge transfer.

This consultation provided an important focal point for expression of population and public health priorities in regions across the country. The response to the consultation from the population and public health community was overwhelmingly positive.

As well, the collaboration between CPHI and IPPH gave an opportunity for the two organizations to communicate their respective goals and priorities to researchers, decision-makers, practitioners and representatives of non-government organizations. This joint initiative shed light on the unique contributions that each organization can make to population and public health in Canada. It also allowed IPPH and CPHI to identify areas of common interest that resonate with the population and public health community and lay important groundwork for future partnership activities to enhance population and public health in Canada.

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This report is based on the results of small group discussions conducted in 10 cities across the country. The thoughtful contributions of the many population and public health researchers, policy-makers and practitioners who participated in the discussions are greatly appreciated.

The Institute of Population and Public Health (IPPH) of the Canadian Institutes of Health Research and the Canadian Population Health Initiative (CPHI) of the Canadian Institute for Health Information also gratefully acknowledge the efforts of the many individuals who assisted in the development of the consultations and this report. We would like to recognize:

- the members of IPPH's Advisory Board and CPHI Council as well as a member of CIHR's Governing Council, who helped plan regional sessions, identify potential participants and who participated in regional discussions;
- staff at CIHR/IPPH and CIHI/CPHI, in particular, Erica Di Ruggiero and John Frank (IPPH) and Joan Campbell, Carmen Connolly, Lindsey McKay, John Millar, Stephen Samis, and Jacqueline Tetroe (CPHI); and
- Brian Hyndman who wrote the report, and Joan Campbell, the editor.

EXECUTIVE SUMMARY

In the fall of 2001, the Canadian Institutes of Health Research, Institute of Population and Public Health (IPPH) and the Canadian Institute for Health Information, Canadian Population Health Initiative (CPHI) carried out a series of consultation sessions in 10 cities across Canada. The aim of these joint consultations was to obtain stakeholder input and inform the priority-setting processes of IPPH and CPHI.

Over 400 participants representing a broad range of research, policy and practitioner interests in the field of population and public health (PPH) took part in the consultation sessions. In small group discussions, they responded to questions that asked about:

- key priorities for PPH research and knowledge transfer,
- local capacity building needs with respect to PPH knowledge creation, synthesis, brokering and transfer,
- opportunities that exist for IPPH/CPHI to collaborate with stakeholders.

The key themes and issues that emerged from the consultations reflect suggestions for action on the part of IPPH and CPHI. Among these, are taking steps to support research and knowledge transfer that address:

- health impacts of poverty and income inequality,
- interactions/pathways among determinants of health,
- population level interventions, and,
- how to engage and influence policy-makers.

In addition, participants want IPPH and CPHI to support improved access to and greater integration of existing databases and to help build greater consensus regarding appropriate research methodologies and standards of evidence in the PPH field.

There was a strong message that PPH research needs to engage the ultimate users (policy-makers, practitioners) of new PPH knowledge in the research process. Participants expect IPPH and CPHI to support approaches that move away from one-way "transfer" of PPH knowledge towards more interactive "knowledge exchange." Developing mechanisms and incentives for linking PPH researchers and policy-makers across regions and sectors is seen as an important way to effect this transition.

Another key theme was the need to address regional inequalities in PPH research and knowledge transfer capacity. The largest gaps were identified in the Atlantic region relative to the rest of the country, especially in the availability of doctoral programs and

funding (including limitations imposed by matching funds). Other regions also experience certain disadvantages, including a sense of isolation (Quebec), erosion of PPH interventions (Ontario), and lack of PPH "receptor" capacity for knowledge exchange (British Columbia).

Participants felt IPPH and CPHI could contribute to innovation and exchange of PPH knowledge by encouraging examination of institutional barriers to PPH knowledge generation and transfer in university tenure, peer review and training processes.

The findings from the consultations are being used by IPPH and CPHI to shape their strategic PPH priorities.

INTRODUCTION

PURPOSE OF CONSULTATION SESSIONS

In the fall of 2001, the Canadian Institutes of Health Research's Institute of Population and Public Health (IPPH) and the Canadian Institute for Health Information's Canadian Population Health Initiative (CPHI) carried out a series of consultation sessions across Canada to obtain stakeholder input into their strategic directions and priorities. Ten consultation sessions were held in the following communities: St. John's, Fredericton, Halifax, Montreal, Ottawa, Toronto, Winnipeg, Saskatoon, Edmonton and Vancouver. Over 400 participants representing a broad range of research, policy and practitioner interests in the field of population and public health took part in the consultation sessions.

The key themes and issues raised at these sessions are presented in the following report. The report is divided into five sections:

1. Mandates, structure and priorities of the sponsoring organizations: IPPH and CPHI;
2. Approach used to obtain participant feedback at the consultation sessions;
3. Profile of participants attending the consultation sessions;
4. Summary of the cross-cutting themes and issues raised by participants at the sessions;
5. Key issues identified by participants and their implications for priority setting by IPPH and CPHI.

The aim of this report is to inform the priority-setting processes of IPPH and CPHI. The opinions and conclusions described herein are based solely on the written proceedings of the consultation sessions, and do not represent official endorsement from the sponsoring organizations.

SPONSORING ORGANIZATIONS

CIHR INSTITUTE OF POPULATION AND PUBLIC HEALTH

The Canadian Institutes of Health Research (CIHR) is Canada's major funding agency for health research. The CIHR's objective is to excel, according to internationally accepted standards of scientific evidence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system. To support the achievement of this objective, the CIHR supports thirteen institutes across Canada, including the CIHR Institute of Population and Public Health (IPPH).

Internationally unique, the CIHR-IPPH represents a synthesis of the *old* and *new* in public health research. The Institute's broad mandate encompasses traditional public health priorities such as investigations of communicable and chronic diseases, injury prevention, health promotion, and the protection of the population from hazards (i.e. environmental). Another area that falls within the mandate is the newer field of *population health*, the inter-disciplinary study of the fundamental determinants of individual and population health. Please refer to **Appendix 1** for a summary of the Institute's objectives

and priorities as outlined in its Strategic Directions Outlook for 2001/2002.

An Institute Advisory Board (IAB) supports CIHR-IPPH in the achievement of its objectives and priorities. Composed of seventeen individuals from Canada and abroad, the IAB is an essential focal point for: gathering expertise; discussion of, and deliberation on, CIHR-IPPH priorities; guidance on the implementation of CIHR-IPPH plans; and dissemination to, and engagement of, the broader community.

The Institute's broad mandate encompasses traditional public health priorities such as investigations of communicable and chronic diseases, injury prevention, health promotion, and the protection of the population from hazards (i.e. environmental). Another area that falls within the mandate is the newer field of population health, the inter-disciplinary study of the fundamental determinants of individual and population health.

CIHI-CANADIAN POPULATION HEALTH INITIATIVE

Since 1994, the Canadian Institute for Health Information (CIHI) has been working to develop and maintain Canada's comprehensive health information system. Mandated by Canada's health ministers, the Institute is a national, not-for-profit organization that delivers the knowledge and develops the tools to advance Canada's health policies, improve the health of the population, strengthen the health system and enable health sector leaders to make informed decisions.

The Canadian Population Health Initiative (CPHI) became an integral part of the CIHI in 1999. CIHI is an arm's length body governed by a Board with a broad mandate that includes a greater focus on population health research and information. This structure and mandate provides a unique opportunity to create synergies and provide support to CPHI.

CPHI's vision is to improve understanding of factors affecting the health of individuals and communities, and to contribute to developing policies that reduce inequities and improve the health and well-being of Canadians.

CPHI's core functions, strategic themes, areas of investigation and policy priorities are presented in **Appendix 2**.


CPHI is supported by a Council comprising eleven members representing a diverse range of interests in the population health field. The purpose of the Council is to provide leadership and coordination to CPHI in achieving its vision of creating knowledge and enhancing Canadians' understanding of the broad determinants of health and supporting the undertaking of policy-relevant research leading to improvement in the health and well-being of Canadians.

CPHI's vision is to improve understanding of factors affecting the health of individuals and communities, and to contribute to developing policies that reduce inequities and improve the health and well-being of Canadians.

CPHI-IPPH PARTNERSHIP

The common aim of supporting the generation and transfer of population health knowledge is the basis for a developing partnership between CPHI and IPPH that attempts to maximize resources and leverage the distinct and complementary strengths of the two organizations. Both organizations recognized the potential synergies and efficiencies in mounting a joint effort to gather input from stakeholders they share in common. The consultation sessions reported on here were jointly conceived and implemented by CPHI and IPPH. Understanding the research and knowledge transfer priorities of key stakeholders in population and public health across

Canada was an important contribution to the partnership. Stakeholders' positive response to the joint consultation suggests the CPHI IPPH partnership can make an important contribution to meeting the needs of those involved in population and public health.



Both organizations recognized the potential synergies and efficiencies in mounting a joint effort to gather input from stakeholders they share in common.

CONSULTATION APPROACH

The consultation sessions were organized using a combination of plenary and structured small group discussions. Nine sessions were conducted in English and one was bilingual (Montreal). A standardized format was used for each consultation session, as outlined in the agenda found in **Appendix 3**.

The small groups varied in size ranging from 6 to 11 people. Each group was supported by a moderator/facilitator, and a recorder. Recorded notes and documentation from flip charts formed the basis of the written transcripts.

Building on the priorities already identified by IPPH and CPHI, each group was asked to generate responses to the following questions:

1. What should be the key priorities for population and public health (PPH) research and knowledge transfer in Canada over the next three to five years?
2. What local capacity building is needed to support the generation, brokering and transfer of new population and public health knowledge into policy and practice?
3. What opportunities exist for IPPH/CPHI to collaborate with stakeholder organizations involved in population and public health?

PROFILE OF PARTICIPANTS

Approximately 400 participants attended the IPPH/CPHI consultation sessions. They represented a broad cross-section of research, knowledge transfer, policy development and practitioner interests. The description below, while not exhaustive, gives a sense of the range and diversity of participants.

Participants from the research community included representatives from the following sectors/organizations: universities, including schools of medicine, nursing, dentistry, rehabilitation and the specifically PPH-related departments, social sciences and other non-health science departments (e.g. anthropology, sociology, geography, history, psychology, social work, philosophy/ethics, urban studies, economics); teaching hospitals; and public and population health research institutes and centres.

The policy-making community was represented by federal and provincial/territorial government departments with mandates related to public

and population health research, including provincial ministries of health; regional/local health and social planning councils; and federal and provincial policy *think-tanks* focused on public and population health policy.

Lastly, practitioner interests were represented by participants from local agencies—e.g. public health departments/regional health authorities, community health centres (Ontario), Centres locaux de services communautaires (CLSC) (Quebec), professional associations, and NGOs/voluntary organizations.

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CROSS-CUTTING THEMES AND ISSUES

KEY PRIORITIES FOR POPULATION AND PUBLIC HEALTH RESEARCH AND KNOWLEDGE TRANSFER (QUESTION 1)

Participants were asked to identify key priorities for research and knowledge transfer. Responses emerging from the structured, small group discussions fell into three broad categories:

1. Priority research themes,
2. Appropriate research methods, standards of evidence and data infrastructure issues, and
3. Knowledge transfer priorities.

The discussion that follows summarizes the dialogue surrounding these themes. Overviews of each of the regional consultation sessions are presented in **Appendix 4**.

Responses emerging from the structured, small group discussions fell into three broad categories:

- 1. Priority research themes,*
- 2. Appropriate research methods, standards of evidence and data infrastructure issues, and*
- 3. Knowledge transfer priorities.*

The impact of poverty and income inequality on the health of individuals and communities were identified as a key research priority at all sessions.

Priority Research Themes

Health Impacts of Poverty/Income Inequality

The impact of poverty and income inequality on the health of individuals and communities were identified as a key research priority at all sessions. Participants cited the need for more research addressing two aspects of the relationship between the inequitable distribution of income and health status. While some participants called for more research on the **ways in which income inequality affects the health status** of the whole population or a specific population group, others cited the need for a greater focus on the **effectiveness of program and policy interventions** to ameliorate the negative health impacts of the effects of income inequality.

Regardless, there was broad agreement on the need for research focused on solutions to the

Participants noted the need for research on the pathways, i.e. causal relationships among the social, environmental, psychological, and biological factors contributing to health status.

health risks posed by income inequality. In emphasizing the need for a practical focus, one participant cautioned that research on poverty does not alleviate poverty, even among those who are the focus of such research.

Interactions among Determinants of Health

A greater focus on the interactions among the determinants of population health was cited as a key priority for research. In particular, participants noted the need for research on the *pathways*, i.e. causal relationships among the social, environmental, psychological, and biological factors contributing to health status. For example, what are the intervening variables (i.e. poverty and income distribution) and modifiable variables that affect health? What influence does the environment have on health behaviours and health outcomes?

Several participants also felt that research on the relationships among determinants of health should take a developmental, *life course* perspective.

Health and the Biophysical Environment

Environmental health research priorities focused on the effects of the environment on human health in specific regions/locations (urban and rural). The need to identify factors contributing to environmental health-related problems such as asthma allergies and chemical sensitivities, as well as the degradation of the environment (e.g. the effects of hog farming on the environment) was a recurring priority. For instance, diagnosis and treatment of environmental hypersensitivities; ways of protecting resources including drinking water, clean air, and food supplies; and effects of exposure to chemical pesticides were mentioned as issues requiring further research.

As one participant noted, the recent resurgence of environmental health issues in

The recent resurgence of environmental health issues in Canada, such as the health impacts of contaminated drinking water in Ontario and Saskatchewan, may necessitate a greater focus on the more traditional aspects of public health: health protection used to be concerned with drinking water, communicable diseases and the contamination of soil, and air. At the beginning of the 21st century, these problems of health protection remain but are more complex than ever, involve more stakeholders, and require even greater focus on prevention.

Canada, such as the health impacts of contaminated drinking water in Ontario and Saskatchewan, may necessitate a greater focus on the more *traditional* aspects of public health: health *protection* used to be concerned with drinking water, communicable diseases and the contamination of soil, and air. At the beginning of the 21st century, these problems of health protection remain but are more complex than ever, involve more stakeholders, and require even greater focus on prevention.

Gene-Environment Interactions

A number of participants expressed concern about research on gene-environment interactions, a strategic priority of the IPPH. In particular, participants felt that either this priority should be re-framed and more work done to establish the relative contribution of environmental and genetic factors in disease and Canada's unique research role, or that gene-environment interactions should be dropped as a priority. The feeling seemed to be related to the longstanding public health and health promotion tradition of focusing on environmental changes to improve population health.

Population-Level Interventions

More research on the effectiveness of interventions aimed at promoting the health of entire communities or populations was another recurring theme. Participants identified the need for applied research on

the impact of population and community-level interventions addressing a broad range of health issues, including those of children and youth, seniors, women and immigrants; issues of mental health and illness, unemployment, workplace health and social isolation were also placed in this category. In addition, questions were raised about what can feasibly be done by provincial/territorial/municipal governments in the short-term.

Research Methods, Standards of Evidence, Data Infrastructure Issues

When considering priorities for PPH research and knowledge transfer, participants spent a great deal of time focusing on questions about appropriate research methods, standards of evidence and data infrastructure. These discussions led to a number of specific suggestions for action.

Research Methods

Participants offered a range of suggestions for supporting specific research methodologies, including a greater emphasis on qualitative research such as participatory action research, health system performance measures, national longitudinal health studies, multivariate analysis and economic studies such as cost-benefit effectiveness decision-making models for assessing public health programs. They called for more qualitative research and research on uptake of qualitative evidence by policy-makers.

Participatory action research is the process of involving community members in the planning, implementation and analysis of research initiatives addressing their shared (health) concerns. This kind of research that values people's experiences—including indigenous information—as a source of research knowledge, was identified as a key priority by a number of participants.

Participatory action research is the process of involving community members in the planning, implementation and analysis of research initiatives addressing their shared (health) concerns. This kind of research that values people's experiences—including indigenous information—as a source of research knowledge, was identified as a key priority by a number of participants. To foster a more supportive climate for participatory action research, participants emphasized the need to address systemic barriers, such as the relatively low value placed on this type of research within academia, including the lack of incentives to conduct participatory action research. Some also felt that greater recognition and legitimacy must be given, by the peer review process, to participatory action research and qualitative research methods in general.

Standards of Evidence

Other participants called for greater focus on the more fundamental issues of demonstrating effectiveness of interventions in population and public health, and reaching consensus on acceptable standards of evidence for PPH. For instance, what kinds of evidence are acceptable/effective? They felt that there is a need for critical reflection on the appropriate concepts, methods, and units of analysis for population health research.

When discussing the issue of evidence, several participants expressed scepticism about the value for PPH of existing meta-analysis mechanisms such as those employed by the Cochrane Collaboration (an international initiative to amass systematic reviews on the effectiveness of medical and health-related interventions). They questioned the validity within a population health context of the Cochrane *gold standard*—randomized clinical trials—and whether such approaches are serving the needs of PPH research users.

Data Infrastructure Issues

Issues around database access and infrastructure were raised at all sessions. Participants provided three key messages pertaining to health-related databases for research and knowledge transfer purposes. First, there is a need for improved access to and linkages between existing databases that would facilitate planning and policy (e.g. linking the National Population Health Survey

and the Canadian Community Health Survey data to health services databases, to monitor the relationship between health status and health services use). In connection with this, some participants pointed to the importance of enhancing researchers' capacity to use linked databases.

Second, participants emphasized the need to build on existing database infrastructure to avoid investing resources in duplication. One suggestion for taking advantage of what exists was to compile an inventory of relevant national and provincial data holdings.

Lastly, participants cited the challenges of extrapolating regional data from national databases and the need for a database infrastructure that is more amenable to the health information priorities of specific regions and communities. Challenges identified by participants include obtaining funding for adequate sampling and cohort sizes appropriate to smaller geographic regions and the "politics of national

Challenges identified by participants include obtaining funding for adequate sampling and cohort sizes appropriate to smaller geographic regions and the "politics of national representation" that seem to disqualify certain local data sets for funding purposes.

Traditional, unidirectional research transfer models must be replaced with interactive, knowledge exchange approaches that engage the ultimate users of research evidence (policy/decision-makers, practitioners) early and often in the research process.

representation" that seem to disqualify certain local data sets for funding purposes.

Knowledge Transfer Priorities: Moving from Transfer to Exchange

Understanding, Engaging and Influencing policy-makers

Participants in all regions of the country repeatedly cited the importance of engaging policy-makers in knowledge transfer activities. They emphasized that traditional, unidirectional *research transfer* models must be replaced with interactive, *knowledge exchange* approaches that engage the ultimate users of research evidence (policy/decision-makers, practitioners) early and often in the research process.

Two priorities for action were noted. First, we must develop a much better understanding of what and how research knowledge is translated into policy. The factors influencing

Engaging the producers and users of research, from the identification of issues, to conducting the research, to the dissemination of findings, is viewed as the most effective strategy for ensuring that knowledge generated through research will be used to inform decisions about population and public health.

decisions and effective strategies for influencing the decision-making process must be identified.

Second, participants noted the importance of developing mechanisms/links between researchers and research users such as policy-makers. Engaging the producers and users of research, from the identification of issues, to conducting the research, to the dissemination of findings, is viewed as the most effective strategy for ensuring that knowledge generated through research will be used to inform decisions about population and public health.

Participants viewed the active involvement of policy and decision-makers as a key prerequisite for bridging the gap between knowledge and practice. Suggestions for engaging policy-makers included building in funding criteria to ensure genuine interaction with policy-makers; short-term career exchanges between researchers and policy-

makers; and, fora for interaction between researchers, policy-makers and practitioners.

While there appeared to be broad consensus on the need for greater involvement of policy-makers, one participant sounded a cautionary note: having policy-makers at the research table might at times block the creative process. In this view, there is a possibility of stifling research if all the players always have to be involved from the start.

Mechanisms for Synthesis and Knowledge Transfer/Exchange

Challenges and opportunities related to the synthesis, exchange and transfer of the knowledge acquired through research initiatives were raised at all of the sessions. Participants identified three priorities for action. First, more research is required on the factors contributing to effective knowledge transfer. It is particularly important to study the factors that positively influence the absorption and uptake by interest groups and other stakeholders of health promoting interventions. Since awareness does not necessarily lead to constructive action, we also need to understand the mechanisms that do result in effective knowledge transfer.

Second, there is a need to focus on effective ways of communicating population and public health knowledge to key stakeholder groups and the public, including the effective and innovative use of various media (print,

It is important to encourage collaboration in the development of high quality synthesis and meta-analysis of public health knowledge such as effective population-level interventions.

electronic) and of accessible language for different audiences.

Lastly, participants emphasized the need for greater investment in knowledge synthesis, diffusion and transfer initiatives. Suggestions included specific calls for proposals to support synthesis research, with sufficient lead time to facilitate stakeholder engagement, as well as the need for resources and supports addressing the systemic barriers to knowledge transfer. In this regard, it is important to encourage collaboration in the development of high quality synthesis and meta-analysis of public health knowledge such as effective population-level interventions. To overcome in particular, a significant obstacle, it was pointed out that universities must start rewarding involvement in knowledge transfer/exchange activities through promotion and tenure processes.

Local Capacity Building Needs (Question 2)

Provide Incentives to Develop and Transfer New Public and Population Health Knowledge

Participants were asked what local capacity is needed to support the generation, brokering and transfer of new population and public health knowledge. In all regions, they cited the need for increased resources to support innovation in the development and transfer of PPH knowledge as a key priority. Suggestions for strengthening knowledge generation included: incentives to recruit and retain faculty and support them to do research by providing time release from teaching, establishing career pathways for population health faculty positions, and *new rules of evaluation* to facilitate this kind of change (e.g. indicators that evaluate performance beyond mere numbers of publications). Participants identified the need to make supportive changes to the way researchers are trained, as well as change the types of knowledge that are valued to encourage researchers to

It is important to create funding opportunities that encourage high risk and innovative research, as well as to establish recognition for such efforts.

operate differently. It is important to create funding opportunities that encourage *high risk* and innovative research, as well as to establish recognition for such efforts. A common theme underlying all responses was the need to go beyond traditional discipline-based approaches to facilitate interdisciplinary training and knowledge transfer.

Specific suggestions for strengthening knowledge transfer and brokering included: offering incentives from funding agencies for research dissemination and disincentives for failure to disseminate (e.g. more support for accessible publications of research findings and relevant textbooks, monographs); hosting national fora to foster knowledge exchange in connection with existing events/meetings (e.g. CPHA national conference); producing consensus workshops for knowledge synthesis; and, using Internet-based video conferencing and funded stakeholder mentoring to bring regional researchers into the knowledge exchange dialogue.

There was broad consensus that expanding the range of partners working with PPH researchers is critical for building the capacity needed for effective knowledge transfer.

Capacity for knowledge generation and transfer varies greatly from region to region ("not a level playing field").

Expand Partnerships to Support Knowledge Generation and Transfer

There was broad consensus that expanding the range of partners working with PPH researchers is critical for building the capacity needed for effective knowledge transfer. Participants observed that PPH researchers require improved incentives and mechanisms (e.g. community liaison positions in universities to help link researchers to local communities) to build and sustain partnerships and to support work between disciplines. For example, there should be support for creating a forum to assemble people from different disciplines whose expertise could assist in answering certain research questions.

Regional Inequalities in Local Capacity

Another key priority is the need to address regional inequalities in local capacity for research and knowledge transfer/exchange. The sessions revealed that capacity for knowledge generation and transfer varies greatly from region to region ("not a level playing field"). The need to address inequities

The need to access matching funds from other sources, a requirement of several research granting agencies, was noted as a significant barrier to building research and knowledge transfer capacity in Atlantic

in networking and connectivity among PPH researchers in regions around the country was also noted, as well as the importance of fostering synergy among the provinces/territories.

- **Research Capacity**—The greatest gaps identified in PPH research capacity emerged in the Atlantic Region relative to the rest of the country. Local research capacity needs in Atlantic Canada include doctoral programs, funding for graduate students, greater opportunities for advancement (i.e. *career ladders*), and a regional centre in population health. Obstacles identified by participants in St. John's, Halifax (included participants from PEI), and Fredericton, include inequitable distribution of funding for research within Atlantic Canada, the so-called *pull to the centre* that places small universities at a disadvantage. More support to develop and sustain effective partnerships is needed to build capacity at all levels. In general, it is felt that these regional inequalities in research capacity must

be addressed explicitly by the funding agencies.

The need to access *matching funds* from other sources, a requirement of several research granting agencies, was noted as a significant barrier to building research and knowledge transfer capacity in Atlantic Canada. (e.g. Regional Partnership Program (CIHR) is problematic in small provinces because potential partners have no money.) The daunting challenges associated with securing funding contributions in an economically disadvantaged region prompted several participants to call for the removal of the matching funds criterion for research initiatives in Atlantic Canada. The fact that there are no provincial government supplements for research further exacerbates the inequality.

- **Knowledge Transfer Capacity**—The need for (re)investment in knowledge generation and transfer infrastructure emerged as a priority for participants in Atlantic Canada. In Quebec, it was observed that funding exists for networks and centres focused on knowledge

Participants would like to see more emphasis on activities that increase the connection between researchers across the provinces.

Declining public health infrastructure and uneven capacity across regions are significant obstacles to transferring new population health knowledge into policy and practice.

transfer. However, research producers and users within Quebec feel at times isolated from the rest of Canada. Participants would like to see more emphasis on activities that increase the connection between researchers across the provinces. Ontario has a large and complex system of knowledge transfer and exchange, but concern about the need to reinvest in PPH program and policy interventions supported by this system was noted. The Prairie region has well-developed data systems, including infrastructure for knowledge exchange on rural and Aboriginal health issues in Manitoba and strong overall support for PPH research in Alberta. In British Columbia, positive features of the knowledge transfer system include linked databases and strong research teams. Concern was expressed, however, about the lack of *receptor capacity* for knowledge exchange.

• **Receptor Capacity in Public Health—**

At many sessions across the country, participants observed that declining public health infrastructure and uneven

capacity across regions are significant obstacles to transferring new population health knowledge into policy and practice. The capacity of public health systems across Canada to address their full scope of practice varies from region to region. Ongoing “downloading” to municipal/regional governments, by some provinces of responsibility for basic public health services has further exacerbated the current situation. Thus, public health “practice” in most parts of Canada has become subject to many local influences, in terms of what programs are actually delivered, which are not, and the extent to which program and policy development is informed by advances in knowledge on the determinants of health.

Opportunities for Collaboration (Question 3)

The need for building bridges and facilitating greater collaboration across research, policy and practitioner communities emerged as a key priority. Partnerships with academics, NGOs, public health departments, voluntary organizations and other relevant stakeholder groups, both within and outside the health sector need to be encouraged (e.g. establishing relationships with Chambers of Commerce; linking engineering schools and environmental science departments with health researchers). The role of organizations in brokering the value of research to their

constituent groups should also be recognized. Some participants proposed specific models and venues for fostering greater collaboration, such as supporting collaboration between CIHR institutes and governments in smaller provinces.

When addressing *Question 3*, many participants tended to reinforce and repeat responses provided to *Questions 1* and *2*. These include: providing resources to build partnerships; fostering intersectoral collaboration; engaging key stakeholders in the identification of research priorities; providing incentives for PPH researchers engaged in collaborative ventures; and addressing regional inequalities in capacity for research and knowledge transfer.

Participants at several sessions noted opportunities for collaboration with the private sector, although other participants expressed

reservations about the extent to which research agendas may be influenced unduly by corporate interests. A number of participants suggested specific opportunities for collaboration or effective examples of collaboration (e.g. working with voluntary associations to broker research; stimulating public debate/dialogue through conferences, consultations, local institutions, etc. that bring diverse sectors of society together; and working with large, multidisciplinary think-tanks).

It is interesting to note that intersectoral collaboration was not identified as a priority at either of the Ontario sessions. This may be due to the presence of venues for intersectoral collaboration in Ontario that do not exist in other regions of the country.

Refer to regional summaries in **Appendix 4** for details.

IMPLICATIONS FOR IPPH/CPHI

The following are the key PPH themes and issues that emerged from the synthesis of the consultation dialogues. In each case, implications for consideration and potential action by IPPH/ CPHI are identified.

Population and Public Health Research and Knowledge Transfer/Exchange Themes (Question 1)

- IPPH/CPHI should actively support research (and knowledge transfer) activities addressing the health impacts of poverty and income inequality. This support should be directed towards encouraging research in Canada on the health impacts of income inequality, as well as research on the effectiveness of program and policy interventions designed to address the negative health impacts of income inequality.
- Research and knowledge transfer activities addressing interactions/pathways between the determinants of health as well as the impact of population-level interventions should be supported by IPPH/CPHI.
- The *gene-environment interactions* priority identified by IPPH needs to be reframed

within a broader context, such as chronic disease prevention.

- IPPH/CPHI should support research and knowledge transfer activities focused on understanding, engaging and influencing policy-makers. These activities should include research on strategies for influencing the policy-making process and mechanisms to support the direct involvement of policy-makers in research and knowledge exchange activities.
- Knowledge synthesis, and transfer/exchange activities supported by IPPH/CPHI should focus on: factors contributing to effective knowledge exchange; effective ways of communicating population and public health knowledge to key stakeholder groups; and reducing the barriers to knowledge transfer/exchange in the population health sector.

The gene-environment interactions priority identified by IPPH needs to be reframed within a broader context, such as chronic disease prevention.

Database access and infrastructure initiatives supported by IPPH/CPHI should focus on improved access and greater integration and increased linkages between existing databases. Efforts to provide greater access to national data for analysis and use at the regional/community level should also be supported.

- Database access and infrastructure initiatives supported by IPPH/CPHI should focus on improved access and greater integration and increased linkages between existing databases. Efforts to provide greater access to national data for analysis and use at the regional/community level should also be supported.
- IPPH/CPHI should facilitate consensus-building activities aimed at fostering greater agreement on appropriate research methodologies and standards of evidence in the field of population and public health.

Supporting Generation, Synthesis, Brokering and Transfer/Exchange of PPH Knowledge (Question 2)

- IPPH/CPHI need to establish and support mechanisms to involve policy-makers in

the knowledge generation and transfer process.

- IPPH/CPHI should invest in initiatives to actively encourage and stimulate knowledge transfer/exchange. Suggestions include financial support to sustain consensus-building workshops to support knowledge synthesis and a national forum involving researchers and policy-makers to foster knowledge exchange.
- The development of partnerships between PPH researchers and other stakeholder groups should be promoted by IPPH/CPHI to facilitate the knowledge transfer process. Priorities include providing researchers with the incentives and mechanisms needed to foster and sustain partnerships with specific stakeholder groups, within and outside the health sector.
- IPPH/CPHI need to implement measures aimed at reducing regional inequities in capacity for knowledge development and transfer. Particular attention needs to be paid to the barriers posed by *matching*

The development of partnerships between PPH researchers and other stakeholder groups should be promoted by IPPH/CPHI to facilitate the knowledge transfer process.

Educational and training opportunities that go beyond discipline-based silos are particularly important.

fund requirements like in Atlantic Canada and other disadvantaged regions.

• IPPH/CPHI need to be proactive in supporting innovation in the development and transfer/exchange of PPH knowledge in Canada. Possible strategies include

incentives to retain faculty and graduate students and training opportunities to encourage and support innovation. Educational and training opportunities that go beyond discipline-based silos are particularly important.

Opportunities for Intersectoral Collaboration (Question 3)

- IPPH/CPHI should support initiatives that lead to greater collaboration across sectors/regions in support of PPH research and knowledge transfer/exchange.

CONCLUSION

This report presents highlights of the key cross-cutting themes and priorities raised by participants at the regional consultation sessions in 10 cities and suggests areas for further action. It is not intended to serve as a comprehensive review of all the issues raised through the consultation process, but rather it is a high-level overview and synthesis of consultation findings.

The consultation findings suggest there is a broad constituency of researchers, policy-makers, practitioners and other stakeholders engaged in PPH across Canada. Generally speaking and with few exceptions, they are supportive of the strategic priorities for research and knowledge transfer/exchange already identified by IPPH and CPHI. There is shared recognition of infrastructure and institutional barriers to PPH research and knowledge transfer/exchange. Obvious regional differences exist in research and knowledge exchange capacity that must not be overlooked. Yet consensus exists across the country about the importance of supporting cross-provincial/territorial efforts to link researchers with one another, and with

policy-makers and practitioners. The consultation also revealed a widely shared view that PPH research needs to engage the ultimate users of research knowledge in the research process, and that knowledge transfer should move towards more interactive "knowledge exchange" with the support of IPPH/CPHI.

Based on the insights gained through this consultation, IPPH and CPHI are developing a coordinated research and knowledge exchange agenda in PPH, to ensure that they are meeting the needs expressed by this diverse group of researchers, policy-makers, practitioners and other stakeholders.

Consensus exists across the country about the importance of supporting cross-provincial/territorial efforts to link researchers with one another, and with policy-makers and practitioners.

APPENDIX 1

STRATEGIC DIRECTIONS OUTLOOK: CIHR INSTITUTE OF POPULATION AND PUBLIC HEALTH 2001-2002

Executive Summary

Overview

Internationally unique, the CIHR Institute of Population and Public Health (IPPH) represents a synthesis of the old and the new in public health research. The Institute's broad ambit encompasses traditional public health investigations of disease and injury prevention, health promotion and the protection of the population from hazards (e.g. infectious disease control, environmental/occupational health research) as well as the newer field of *population health*. Population health is the inter-disciplinary study of the fundamental determinants of individual and population-level health, especially the interaction of social and physical environments with genetic predispositions within societies, over the life course.

Objectives

The Institute's objectives are intended to transcend the many diverse sub-fields of population and public health. They are:

1. To develop Canada's capacity for high-quality research in population and public health (PPH), which by its very nature

tends to be inter-disciplinary, and to catalyze the development in Canada of internationally-respected research projects and findings in this field, by capitalizing on our national research strengths.

2. To build bridges between researchers and users of PPH research, namely policy-makers and program administrators in the public, private and voluntary sectors that affect health, so as to increase research uptake/transfer, fostering evidence-based public health policy and practice.
3. To demonstrate clear *value added* from funding strategic (as opposed to purely investigator-initiated) research in this field, in accordance with the ongoing transformation of CIHR itself.
4. To act as an effective partner in CIHR cross-Institute activities, which span the four *pillars* of health research (basic science, clinical practice, health services and policy, and public/population health).

Current Priorities

The current state of PPH research in Canada is not well documented. It is also difficult to

track the participation of this very diverse community of researchers. Furthermore, the lack of a common forum for discussing research priorities in PPH suggests that IPPH must itself act as a national meeting ground for bringing these groups together to decide on priorities. Given this historical context and after considerable deliberation, the Institute's Advisory Board selected six broad themes or priorities for Institute initiatives in this first year of CIHR Institute operations. These priorities are described below, in no particular order of importance. They will be further shaped by input from stakeholders as the Institute embarks on its cross-country tour in the fall 2001 and will form the basis for IPPH's three to five year strategic plan in November 2001, which will be submitted to Governing Council.

1. TRAINING FOR INNOVATIVE RESEARCH: BUILDING CANADIAN CAPACITY

Vision: The CIHR-IPPH will facilitate, with the active participation of PPH stakeholders across Canada, the establishment of a coordinated, high-quality and comprehensive PPH training capacity across Canada—a virtual/networked Canadian National School of Population and Public Health.

2. POPULATION-BASED HEALTH DATABASE DESIGN AND DEVELOPMENT

Vision: The CIHR-IPPH will collaborate (with Health Canada, the provinces, Statistics Canada, the Canadian Institute for Health Information/Canadian Population Health Initiative and other key stakeholders) in the

coordinated planning and development of a national system of linked and integrated population-level health databases to meet the research needs of the next century, while also serving policy-makers' needs for ongoing monitoring of the health status of Canadians

3. GENE-ENVIRONMENT INTERACTIONS

Vision: The CIHR-IPPH will develop Canada's capacity to integrate population-health sciences and genetic research methods, to provide rich fundamental insights into the causation of the common multifactorial (and genetically *complex*) diseases of modern society, that are jointly determined by our genetic inheritance and the sequence of social and physical environments to which we are exposed as we age.

4. CONTEXT (HOME/FAMILY; DAYCARE/ SCHOOL; WORK/RECREATION; INSTITUTIONAL VERSUS DOMICILIARY LIVING FOR THE ELDERLY AND DISABLED; NEIGHBOURHOOD/ COMMUNITY) AS DETERMINANTS OF HEALTH OVER THE LIFE-COURSE

Vision: The CIHR-IPPH will create a rich and diverse network of researchers and policy-makers/program administrators across Canada to identify, in an ongoing way, the critical research questions arising from the physical and social features of these *micro-environments* that could be altered so as to improve population health status. CIHR-IPPH will then partner with other research funders to ensure that those research questions are

tackled in a peer-reviewed program of innovative inter-disciplinary investigations that feeds back to the research users who can improve these environments.

5. POPULATION-LEVEL INTERVENTIONS TO IMPROVE HEALTH

Vision: The CIHR-IPPH will: spearhead the development of new research capacity to plan, execute and rigorously evaluate policy and program interventions which can substantially improve target populations' health status; and go on to demonstrate this capacity, through funding creative Canadian intervention studies, that are subsequently used to provide practical guidance to

policymakers and program administrators. A key focus will be *multiple intervention programs* that have been demonstrated to be most effective in tackling important public health problems.

6. GLOBAL HEALTH

Vision: CIHR-IPPH will champion and facilitate, in partnership with other Canadian organizations committed to international collaboration and technical assistance, the development and utilization of our national research capacity to address the overwhelming health problems of the developing world and many middle-income countries.

APPENDIX 2

CANADIAN POPULATION HEALTH INITIATIVE FUNCTIONS AND THEMES

Core Functions

The goal of the Canadian Population Health Initiative (CPHI) is to bring together talented researchers and decision-makers from across Canada in order to bridge leading edge population health research and decision making. In 1997, a pilot of CPHI was initiated following a recommendation by the National Forum on Health. Further financial support of \$19.9 million dollars over four years was provided to CPHI in the 1999 federal budget through the Health Information Roadmap Initiative. CPHI funding was renewed for an additional four years (2003-2006) in the December 2001 federal budget, through Roadmap II.

CPHI's vision is to improve understanding of factors affecting the health of individuals and communities, and to contribute to developing policies that reduce inequities and improve the health and well-being of Canadians. As a key actor in population health, CPHI will undertake the following core functions:

- Generate new knowledge on the determinants of health
- Contribute to the development of a national population health information system and infrastructure
- Support synthesis of research evidence and the analysis of policy options
- Contribute to regular reporting to Canadians on their health and well-being.

CPHI Strategic Themes and Questions

1. Why are some communities healthy and others not?

- Are health status differences among groups within the population in Canada, whose health status has traditionally been different (in particular, socio-economic strata, male/female, and aboriginal/non-aboriginal), getting larger, smaller, or remaining the same?
- Why is health status in some communities in Canada higher (or lower) than expected, given the community's socio-economic circumstances?

- What are the impacts and effects of public policies and social changes, not necessarily designed to affect health, on the health of Canadians?
- To what extent, and how, do community-level characteristics such as inequality and cohesion affect individuals' health, over and above the influences of individual level factors?
- What are the most relevant dimensions of "community"—geographic (including natural and built environments), social, and ethnic—from the perspective of determinants of health? In particular how might factors such as participation in civic life, cohesion and resiliency contribute toward promoting and preserving health and what public policy actions might enhance these attributes?
- What makes some aboriginal communities healthier than others?

2. To what extent do Canada's major policies and programs improve population health?

- How does the Canadian health care system (as a whole, and in terms of its component parts) affect the health status of communities and groups within the population compared to other forms of intervention, such as poverty prevention, child development, programs for the elderly, etc.?
- What might be the impact on the health care system of reducing disparities in the health of Canadians? What would be the impact on the health care system of addressing the fundamental and proximal determinants of preventable diseases and conditions?
- What are the health status benefits of interventions designed to improve health at the level of the population? For instance, what are the impacts on health of communications, education, work-place, economic, environmental and community development initiatives? What are the key strategies that could be integrated into a comprehensive approach to addressing the determinants of health and the determinants of the top preventable diseases and conditions affecting the health of Canadians?

3. How do social roles at work, in the family and in the community affect health status over the life course?

- How do childhood experiences affect health in later life? How important is timing, in terms of the notion that early experience is particularly important? What is the influence of a child's social environment on his/her perception of risk and what is the role of resiliency in the face of income and education inequality? What mental health intervention models

for children and youth will foster resilience throughout the life course?

- What are the characteristics of work experiences which influence health over time? Are some Canadian work arrangements healthier than others?
- How do the dynamics of family and community roles affect an individual's health status?
- What are the modifiable determinants of "healthy aging" in Canada?
- What is the connection between external psychosocial determinants of health and internal molecular-biological structures?

4. *What are the population health effects of broad factors in social organization in Canada and other wealthy countries?*

- Are there other wealthy countries whose policies, practices, and social organization lead to better health than Canadians enjoy? If so, what can Canada learn from these other countries which might improve our health status? How are major health problems evolving in Canada compared to other wealthy countries?
- What are the health implications of the distribution of wealth and income in Canada compared to other nations? What are the policy implications arising from this knowledge?

- How are Canadian children developing in comparison with children in other wealthy countries?
- Are the workplace policies in other countries, including work organization, psychosocial working conditions, worklife-homelife balance, leave policies, economic security, and workplace mobility; more or less supportive of health than Canadian policies?
- Are there trade-offs between health-enhancing workplace and social policies, and economic productivity and growth? Do societies have to choose between health and wealth?
- How are Canadian seniors aging in comparison to seniors in other wealthy countries?

5. *What is Canada's relationship to population health from a global perspective?*

- Are we exporting poor health? For example, how does the resource consumption intensity of Canadians' lifestyle, and planned changes such as implied by the Kyoto accord, affect both our own health, and the health of those in other countries?
- Is the large size of Canada's ecological footprint globally sustainable? That is, are we appropriating global photosynthetic

resources needed by other societies to achieve our level of health?

- How does Canada's role in a "globalizing economy" (e.g. trade patterns, labour practices, energy/pollution content of traded goods) affect our health and that of others?
- What can we learn from the experience of other countries about the links among sustainable health, sustainable development, and sustainable health care, in order to improve population health?

CPHI Areas of Research Investigation

- Inequalities in metropolitan communities
- Early childhood development; child and adolescent health
- Aboriginal peoples/communities

- Mental health
- Health of population groups (e.g. women, immigrants, the poor)
- Labour market and occupational influences on health
- Development of community health indicators
- Determinants of illness and service delivery (e.g. asthma, chronic pain, prescribing patterns)
- Knowledge transfer and policy development

CPHI Policy Priorities 2001-2002

- Poverty and health
- Aboriginal peoples' health
- Obesity

APPENDIX 3

GENERIC CONSULTATION SESSION AGENDA

Canadian Institutes of Health Research (CIHR)/
Institute of Population and Public Health (IPPH)
Canadian Institute for Health Information (CIHI)/
Canadian Population Health Initiative (CPHI)

Consultation Tour

AGENDA

Jointly hosted by:

CIHR - Institute of Population and Public Health - Dr. John Frank, Scientific Director,
Erica Di Ruggiero, Assistant Director

CIHI - Canadian Population Health Initiative - Dr. John Millar, VP, Research & Population Health,
Carmen Connolly, Director, CPHI Regional Co-Host

- 1) Welcome and Introductions
- 2) Overview of IPPH, CPHI and IPPH-CPHI Partnership (Plenary Session Followed by Q and A period)
- 3) Review of small group exercise/Small Group Discussion (Including break)
- 4) Reporting Back
- 5) Synthesis & Wrap-Up

APPENDIX 4

REGIONAL CONSULTATION SUMMARIES

Regional Consultation # 1: Fredericton, New Brunswick September 24, 2001

Session Composition

Participants included representatives from the provincial government (e.g. Ministries of Health and Family and Community Services, etc.), university departments with an interest in Population and Public Health (PPH) research and knowledge transfer (e.g. nursing, sociology) and university-based research centres (e.g. Fergusson Centre for Family Violence).

Priorities for Research

Priorities included: the health impacts of income inequality, factors contributing to chemical and environmental allergies, and interactions between health determinants over the life course (e.g. childhood development, work and health, etc.). Participants also noted the importance of assessing the impact of population-level interventions to address issues such as mental health, rural/urban isolation, school health, aging and individuals/families dealing with chronic disabilities. A degree of skepticism was expressed about research on gene-environment interactions, with several

participants questioning IPPH's focus on this issue.

When considering the issue of appropriate standards of evidence for research, participants noted that the parameters for evidence-based research should be broadened beyond randomized clinical trials (RCT). Qualitative and participatory action research methods were viewed as more appropriate means of examining people's experience to elucidate PPH problems.

Priorities for Knowledge Transfer/Exchange

Suggestions for enhancing PPH database infrastructure included increased access to databanks and increased resources to support the collection of PPH data in smaller geographic regions, such as New Brunswick. The need to involve policy-makers in the knowledge transfer process in order to better inform the "haphazard" nature of government decision making was also cited as a key priority.

Local Capacity Building Needs

Participants suggested specific incentives for knowledge transfer, e.g. time-release for faculty to conduct research, investigator

awards and greater support to move new PPH researchers up the career ladder. Fostering the expansion of partnerships with key stakeholder groups, such as voluntary organizations (e.g. Heart and Stroke Foundation), was noted as a key priority for effective knowledge transfer.

Concern was expressed about the existing regional inequalities in knowledge transfer capacity. This inequality, which is exacerbated by a lack of provincial government support for PPH research, contributes to a perception that the province is often “left out” of PPH research and knowledge transfer initiatives.

Opportunities for Collaboration

Participants felt that any collaborative initiatives should focus on reducing the prevailing regional inequalities in PPH research and knowledge transfer. Suggested collaborating organizations included the Rural and Small Towns program and health-related non-governmental organizations.

Regional Consultation # 2: St. John's, Newfoundland September 25, 2001

Session Composition

Participants included representatives from the provincial government (Department of Health & Community Services), community agencies (e.g. Community Services Council), university departments with an interest in PPH research

and knowledge transfer (e.g. health sciences, education, community health, nursing, sociology, pharmacoepidemiology), and university-based research centres (e.g. Newfoundland & Labrador Centre for Applied Health Research).

Priorities for Research

Priorities identified by participants included the health impacts of income inequality as well as pathways and interactions between the determinants of health. Work and health was flagged as a specific priority.

Other research priorities included: health and the biophysical environment, with a particular focus on the factors contributing to allergies and other environmental health problems; the impact of population-level interventions on the enhancement of health status; and, the impact of protective factors (e.g. resiliency) on individual and population health. Participants expressed interest in the application of participatory action research as an appropriate method of building both community and indigenous knowledge of population health issues.

Priorities for Knowledge Transfer/Exchange

Participants called for a greater emphasis on networked access to existing databases, rather than the development of additional databases at the national level. However, a need for the development of issue-specific

databases (e.g. cardiovascular disease, diabetes) was also cited.

As was the case with other regional sessions, participants expressed a considerable level of interest in engaging policy-makers in knowledge transfer activities. Training policy advisors in communicating research knowledge and seconding government officials to research initiatives were two of the specific strategies noted at the St. John's session. Follow-up research to better understand the impact of PPH knowledge dissemination activities was also noted as a priority.

Local Capacity Building Needs

Specific suggestions included more financial incentives for research dissemination, increased lead time for Requests for Applications (RFAs) in order to develop community partnerships, and greater resources for reaching the "non-academic" sector through knowledge transfer initiatives. Training initiatives and the establishment of a regional centre in population health were two of the ideas brought forward in response to the current knowledge generation and transfer capacity inequalities in this region.

Opportunities for Collaboration

Suggestions included greater incentives for knowledge dissemination and transfer, such as engaging stakeholder organizations early on in the development of research questions and increased collaboration with the private

sector (e.g. pharmaceutical companies).

Possible collaborating organizations identified by participants included the Premier's Council on Social Development, the Newfoundland Centre for Applied Health Research and the Atlantic Innovation Fund.

Regional Consultation # 3: Halifax, Nova Scotia September 26, 2001

Session Composition

Participants included representatives from the provincial government (e.g. Ministries of Health and Environment), the federal government (e.g. Health Canada), university schools and departments (e.g. Atlantic Veterinary College), and university-based research centres (e.g. Atlantic Health Promotion Research Centre).

Priorities for Research

Priorities identified by participants included: the health impacts of poverty/income inequality, interactions between health determinants (with a focus on intervening variables such as protective factors), and the role of PPH in reforming health care services. In addition, participants called for a greater focus on assessing the impact of population health interventions to address issues such as women's health, food security, rural isolation and chronic unemployment. The value of qualitative research as a legitimate

means of investigating PPH issues was noted throughout the session.

Participants had mixed reactions to research on gene-environment interactions. While some participants expressed skepticism (e.g. "what can Canada do that is unique in this area?"), others saw an opportunity to focus on *pharmacogenetics* to ensure safer exposure to drugs.

Priorities for Knowledge Transfer/Exchange

Increased harmonization of PPH databases and the need to reduce restrictions on database access were cited as key knowledge transfer priorities by participants. Other knowledge transfer priorities included a greater focus on disseminating research evidence to policy-makers, and more comprehensive processes to identify the current state of knowledge on any given PPH issue.

Local Capacity Building Needs

Suggestions included incentives for knowledge dissemination and transfer, such as more release time to enable academics to conduct research. Greater involvement of policy/decision-makers in the knowledge generation/transfer process was also noted as a key priority. Suggestions for action on this issue included research training for decision-makers and mechanisms for ongoing dialogue between researchers and policy-makers ("so research findings don't

have to be reduced to a one-page synopsis [to increase their chances of being read by policy-makers]").

Regional inequalities in PPH research and knowledge transfer capacity were cited as a key impediment. Participants felt that the "matching funds" model for supporting research needed to be re-examined, given the lack of financial resources among key stakeholders in Atlantic Canada.

Opportunities for Collaboration

Participants noted that the provision of resources directly to stakeholders was a necessary pre-requisite to creating collaborative opportunities ("...otherwise you're just exploiting them"). Possible collaborating organizations identified by participants included the PEI Health Research Institute, the Atlantic Health Promotion Research Centre, and the Centre for Aging at Mount St. Vincent University.

Regional Consultation # 4: Montreal, Quebec September 28, 2001

Session Composition

Participants included representatives from university teaching hospitals, the provincial government, Centres locaux de services communautaires (CLSC) associations, university departments/schools (e.g. nursing),

and federal government agencies (e.g. Statistics Canada).

Priorities for Research

Suggested priorities included research on the interactions among health determinants, with a particular emphasis on the ways in which environmental factors influence health-related behaviours and health outcomes. Other suggestions included urban health issues, global health, environmental health (especially the maintenance of “healthy resources” such as water), and the impacts of population-level interventions on workplace health, marginalized groups and violent crime. Increased support for interdisciplinary teams of researchers was seen as the best means of assessing the effects of population-level interventions.

Regarding IPPH's gene-environment research priority, participants stressed the need for a balanced approach (“...it's a lot easier to work on the genetic side of the equation compared to the environment; we need to be doing both.”). Other participants questioned the need to have this theme identified as a research priority.

Priorities for Knowledge Transfer/Exchange

Participants called for greater linkages between PPH databases, and higher standards of data quality. A greater emphasis on understanding, engaging and influencing

policy-makers was identified as a necessary prerequisite for effective knowledge transfer. Participants recommended opportunities for information exchange (“give policy training to researchers and vice versa”) as an effective strategy for involving decision-makers in PPH knowledge transfer.

Local Capacity Building Needs

Specific suggestions included mechanisms for fostering knowledge transfer between disciplines (e.g. “create a forum to get people together from different disciplines”) and funding *liaison* positions to link researchers to local communities. Reducing the perceived sense of isolation between PPH researchers in Quebec and their colleagues from other regions was noted as a key priority for building an effective PPH knowledge transfer network across Canada.

Participants called for incentives to support innovation in the development and transfer of new PPH knowledge. Specific suggestions included earmarking resources for innovative structures for knowledge generation and transfer (“encouraging researchers to operate differently”), and changes to the ways in which the performance of researchers is evaluated (e.g. placing greater value on community-based research).

Opportunities for Collaboration

Participants felt that collaborative efforts should focus on improved coordination with

provincial organizations and better integration with other sources of PPH research funding. L'institut national de la santé publique du Québec was identified as a potential partner.

Regional Consultation # 5: Winnipeg, Manitoba October 1, 2001

Session Composition

Participants included representatives from the provincial government (Manitoba Health and Department of Labour and Immigration), the federal government (Health Canada), health-related agencies (e.g. Society of Manitobans with Disabilities), special interest groups (e.g. Manitoba Federation of Labour), university departments with an interest in PPH research and knowledge transfer (e.g. food and nutrition, medical microbiology, sociology, dentistry), and university-based research centres (e.g. Northern Health Research Unit).

Priorities for Research

Participants called for a greater focus on interactions among health determinants ("pathways that influence public health"). Other research priorities noted at the session included agricultural-environmental research (e.g. environmental health impacts of hog farming), the aging population, and the ways in which communities mediate the health impacts of *structural challenges* (i.e. factors contributing to health inequalities).

The identification of appropriate PPH research methods and standards of evidence emerged as a key priority. Specifically, participants called for "greater research into the methodology of research" in order to reach consensus on the most appropriate approaches to inquiry in the field of PPH. Participants also called for increased support for qualitative research, with a particular emphasis on generating qualitative studies that appeal to policy-makers.

Priorities for Knowledge Transfer/Exchange

Participants called for linkages between national health databases, (e.g. National Population Health Survey) and health care records databases as a means of monitoring the relationship between health status and the utilization of health services. The need to maintain a balance between supporting national databases and meeting PPH information needs at the local and regional level was also noted, as was greater alliances between the university and community. The Social Sciences and Humanities Research Council's *Community-University Research Alliance* (CURA) model was cited repeatedly as an effective strategy for building academic-community partnerships.

Local Capacity Building Needs

The lack of incentives to support innovation in the development of new PPH knowledge was cited as a key capacity deficit by participants.

In particular, insufficient resources to support new PPH researchers were cited as a key barrier to knowledge generation and transfer ("we're wasting good people because we can't get support... we're losing graduate students and faculty because we're not competitive at salary or research support levels."). A greater focus on intersectoral collaboration was also cited as a necessity for building knowledge transfer capacity.

Opportunities for Collaboration

Participants felt that IPPH/CPHI could play a brokering role in the development of research partnerships. The nature and scope of collaboration should be tailored according to the organization of PPH services in any given province/region. Special consideration should be given to the concept of communities as stakeholders.

Regional Consultation # 6: Saskatoon, Saskatchewan October 2, 2001

Session Composition

Participants included representatives from the provincial government (e.g. Chief Medical Officer of Health) and university-based research centres (e.g. Saskatchewan Population Health and Evaluation Research Unit (SPHERU), Prairie Region Health Promotion Centre). A representative from

the Romanow Commission on the future of Canada's health care system was also present.

Priorities for Research

Participants called for a greater focus on applied research on the practice of health promotion ("need to look closely at the effective components of any [health promotion] endeavours"). Other suggestions included further research on capacity building, global health, and the evaluation of population-level interventions for marginalized groups (e.g. Aboriginal peoples and isolated, rural communities). Participatory action research was cited as an important method for addressing these priorities.

A greater focus on determining the most appropriate ways of demonstrating and documenting the effectiveness of PPH interventions was another priority emerging at the session. Specific suggestions by participants included the need to develop comprehensive indicators for effective interventions and increased support for synthesizing *best practices* research.

Priorities for Knowledge Transfer/Exchange

Participants felt that effective knowledge transfer required a greater understanding of how knowledge is translated into policy by decision-makers ("how is this actually done in the trenches?"). The translation of research

findings into “down-to-earth” language was also noted as an important priority for fostering the uptake of PPH knowledge. It was noted, however, that increased awareness alone was not a sufficient condition for effective knowledge transfer.

Local Capacity Building Needs

The need to address regional inequalities in research capacity was noted by participants. Other suggestions included incentives to support innovation in the development of new PPH knowledge. Specific suggestions for support included long-term funding for PPH positions within university departments and the provincial ministry of health, as well as an agreed-upon set of indicators for evaluating the performance of PPH researchers. Specifically, participants felt that these indicators needed to “go beyond numbers of publications and quality of journals” by incorporating other ways of contributing to the knowledge transfer process.

Opportunities for Collaboration

Participants felt that such opportunities should focus on identifying and testing models for partnerships between PPH researchers and community stakeholders. Possible collaborating organizations identified by participants included the Health Science First Nations Initiative, the Saskatchewan Child Action Plan, and the Aboriginal Health Transfer.

Regional Consultation # 7: Edmonton, Alberta October 3, 2001

Session Composition

Participants included representatives from the federal government (e.g. Health Canada), municipal governments (e.g. Edmonton Social Planning Council), university-based research centres (e.g. Alberta Centre for Well-being), university departments (e.g. Department of Sociology, University of Alberta), the Capital Region Health Authority, and the private sector (e.g. Canadian Imperial Bank of Commerce Information Technology Division).

Priorities for Research

Suggested research priorities included: the impact of income inequality as a determinant of health; impacts of interventions aimed at reducing inequalities in health; biological *pathways* for the positive and negative health aspects of the social environment; the health impacts of the environment (e.g. air, water) in urban populations; and national longitudinal health studies, with an emphasis on studies on the effects of policy changes and population-level interventions to improve health status.

Participants also discussed the parameters around acceptable PPH “evidence.” Frustration was expressed with the narrow focus of the Cochrane collaboration, which

appeared to embrace the traditional emphasis on randomized clinical trials (RCT) as the "gold standard" of effectiveness.

Priorities for Knowledge Transfer/Exchange

As was the case in other sessions, participants felt that greater outreach to policy and decision-makers was needed to facilitate the effective transfer of PPH knowledge. However, one participant expressed concern that the active involvement of policy-makers in forming research questions and hypotheses could "block the creative process and would perhaps stifle research."

Other suggested priorities included greater research on effective dissemination strategies and collaboration in the development of high-quality synthesis and meta-analytic literature on PPH interventions. The latter suggestion came with the caveat that such initiatives be accompanied by a proactive dissemination and promotion strategy (i.e. "not just a clearinghouse, which often becomes a warehouse").

Local Capacity Building Needs

Identified needs included greater support for publication of knowledge transfer materials (i.e. research findings, textbooks, monographs) and incentives for PPH researchers to work with other sectors/disciplines, such as seed money for

cross-disciplinary investigations. Fora for interaction between researchers, policy-makers and practitioners was noted as one possible strategy for fostering the generation and transfer of PPH knowledge. Participants also advocated for increased stipends to graduate students in PPH as a means of supporting the development of new knowledge in the field.

Opportunities for Collaboration

Unlike other sessions, the Edmonton session generated a large number of suggestions about potential collaborating organizations. Possible collaborating organizations included the Edmonton Social Planning Council, the Alberta Centre for Wellness, the Alberta Heritage Fund for Medical Research, the Max Bell Foundation, the Centre for Health Promotion Studies and the Pembina Institute.

Regional Consultation # 8: Vancouver, British Columbia October 4, 2001

Session Composition

Participants included representatives from the provincial government (Ministry of Health Services and Ministry of Health Planning), provincial government organizations (e.g. British Columbia Centre for Disease Control), the federal government (Health Canada), statutory agencies (e.g. Workers' Compensation Board of British Columbia),

community health service organizations (e.g. Vancouver/Richmond Health Board), university schools and departments with an interest in PPH research and knowledge transfer (e.g. occupational and environmental hygiene, anthropology, health information science, geography), and university-based research centres (e.g. Centre for Health Services and Policy Research).

Priorities for Research

Suggestions for research included: the importance of power (i.e. control) and power relations between groups as a determinant of health, interactions between social and bio/psychological determinants of health, homelessness and health, and environmental health (air, water, soil, food). Participants expressed support for participatory research as an appropriate and legitimate method of PPH research.

Participants also called for the development of "large, multidisciplinary think-tanks" to support PPH research activities. Broad interest in supporting research on PPH effectiveness (i.e. what works) was expressed at the session.

Priorities for Knowledge Transfer/Exchange

Participants called for the more efficient use of existing PPH databases. Specific suggestions for ensuring the efficient use of databases included increased linkages and

building capacity to use linked databases. Some frustration was expressed about the limitations of national PPH databases for regional information priorities ("if it doesn't have national representation, it doesn't get funded"). To ensure that knowledge transfer guides programming and policy decisions, participants also called for a greater examination of the tactics and strategies that have proven to be effective in persuading decision-makers.

Local Capacity Building Needs

An expanded range of partnerships with other stakeholder groups was cited repeatedly as a priority for enhancing PPH knowledge generation and transfer capacity. Participants brought forward a number of specific suggestions for knowledge transfer partnerships, such as links between PPH researchers, schools of engineering, and environmental science departments. Other specific suggestions for allocating resources included training to support knowledge transfer capacity, assessing and reviewing existing PPH curricula and the creation of a "virtual school of public health."

Opportunities for Collaboration

Participants suggested that future collaborative efforts focus on the development of interdisciplinary institutes with an interest in PPH research and knowledge transfer. Possible collaborating organizations identified by participants included the

Canadian Policy Research Network, the Vital Statistics Database Project (Aboriginal Health) and the interdisciplinary programs at the University of Victoria and the University of British Columbia.

Regional Consultation # 9: Toronto, Ontario October 9, 2001

Session Composition

Participants included representatives from local public health departments (e.g. Hamilton-Wentworth, Region of Waterloo), the Public Health Research & Education Development (PHRED) program, university departments, university-based research centres (e.g. Centre for Health Promotion, University of Toronto), health promotion resource centres (e.g. Ontario Prevention Clearinghouse), and health-related interest groups (e.g. Ontario Healthy Communities Coalition).

Priorities for Research

Suggestions included research on the health impacts of income inequality, interactions among/between health determinants, and the impact of population-level interventions on issues such as *lifestyle* behaviours, obesity, immigrant health and aging. Research on community capacity-building, especially research utilizing participatory action methods, was also identified as an innovation worthy of support by IPPH/CPHI.

Research on the gene-environment interaction, a stated priority of IPPH, drew a mixed response. While some participants viewed this work as an opportunity to establish the relative contribution of environmental and genetic factors in disease, others felt that genetics was not an appropriate area of focus for PPH researchers.

Priorities for Knowledge Transfer/Exchange

Participants called for the establishment of better linkages between PPH databases in order to facilitate planning and policy. The development of new databases on biological risk factors was also noted as a knowledge transfer priority.

To facilitate the transition from knowledge transfer to knowledge exchange, participants called for better means of communicating PPH knowledge ("beyond traditional methods") and a reward structure that provides increased incentives for knowledge transfer activities.

Local Capacity Building Needs

Participants emphasized the importance of supporting an expanded range of partnerships with other (i.e. non-PPH) sectors, as well as increased collaboration with policy-makers. *Making Connections*, an Ontario project aimed at raising public awareness of the determinants of health, was

noted as a successful example of a joint venture between researchers and policy stakeholders. A greater investment of resources to support a "stable trajectory/career path" for new PPH researchers was also viewed as a priority for enhancing knowledge generation and transfer capacity.

The discussion of knowledge generation and transfer needs underscored the relatively large, complex and well-funded (relative to other regions of Canada) PPH infrastructure that exists in Ontario. At the same time, however, participants were concerned about the erosion of the core programs and services (e.g. public health department programs) supported by this system as a result of provincial funding cuts and downloading.

Opportunities for Collaboration

Increased partnerships with provincial ministries of health were suggested as a priority for action. Unlike other sessions, however, mechanisms to support intersectoral collaboration were not viewed as a key priority. This may be due to the relatively large (compared to other regions) infrastructure for collaboration that exists in the province.

Regional Consultation # 10: Ottawa, Ontario October 29, 2001

Session Composition

Participants included representatives from teaching health units (e.g. Ottawa-Carleton Public Health Research and Education Development [PHRED] program), national research centres (e.g. National Cancer Institute of Canada), university departments (e.g. Department of Community Health and Epidemiology, Queen's University), and health-related professional interest groups (e.g. Registered Nurses Association of Ontario).

Priorities for Research

The association between health and income was noted as a key priority for PPH research. The extent to which good health could be "earned" (through income) or "bought" (through social transfers) was a particular area of interest.

Other priorities for research cited at the session included youth health promotion, global health (e.g. international comparisons), and the assessment of population-level interventions (especially those addressing child/youth development). Participants were generally supportive of research on gene-environment interactions, an IPPH priority, with the proviso that the "environmental" aspect of the relationship should be further emphasized.

The nature and scope of PPH research methods generated extensive discussion at the session. Priorities for action cited by participants included the development of economic decision-making models for public health programs and more appropriate meta-analytic frameworks for compiling PPH evidence (i.e. alternatives to the Cochrane collaboration).

Priorities for Knowledge Transfer/Exchange

Identifying and addressing barriers to database access and linkage was identified as a key pre-requisite to enhanced knowledge transfer. In addition, participants called for greater research on effective ways of communicating PPH knowledge to different audiences and increased incentives for PPH researchers to partner with knowledge transfer specialists.

Local Capacity Building Needs

Specific suggestions for facilitating knowledge transfer included a consensus-building workshop for knowledge synthesis and the development of partnerships outside the health sector, such as government-university alliances. Short-term exchange secondments between researchers and policy-makers were put forward as a possible means of fostering the involvement of decision-makers in the knowledge transfer process.

Opportunities for Collaboration

Possible collaborating organizations identified by participants included the Social Sciences and Humanities Research Council (SSHRC), Smartrisk Foundation (an injury prevention organization), and the Campbell Collaboration (an alternative to the Cochrane initiative). Participants felt that collaborative ventures supported by IPPH/CPHI should focus on identifying best practice models for research and knowledge transfer and sustaining health promotion efforts.

